

GEORGE W. YORK, Editor.

AMERICAN BEE JOURNAL.

ESTABLISHED IN 1861 OLDEST BEE-PAPER IN AMERICA
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY-PRODUCERS

39th YEAR.

CHICAGO, ILL., JUNE 1, 1899.

No. 22.

Seventeen Prominent Canadian Bee-Keepers.

(See page 345.)

(From the Canadian Bee Journal.)



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CONTRIBUTED ARTICLES

Bees and Fruits—The Facts in the Case.

BY PROF. A. J. COOK.

As conductor of Farmers' Institutes for Southern California, I have a good opportunity to feel of the public pulse regarding bees, and I have been more than gratified at the general right-mindedness of all parties interested. As a region where all kinds and the most luscious fruits are raised, and where extensive fruit-drying is carried on, it goes without saying that bees will of necessity be more or less of an annoyance at certain seasons in certain years. When we couple with the above facts that of the general presence of bees, and often in immense numbers, we readily see that the question of bees and fruits becomes one of great importance.

The last week in March and the first week in April I held institutes in four regions where fruit-growing is the leading industry, and where bees are kept in great numbers. These meetings were attended by hardly less than 2,000 people in the aggregate. In two of the places—Villa Park and Banning—lawsuits have been recently instituted between orchardists and apiarists. The fact that I was requested to give the true status of the relation of bees to fruit, shows clearly that the people for the most part wish to know the truth. I gave as below the facts as I see them, and was more than pleased to note that few took objection to my position; indeed, only one man called in question my statements, and he did so in private, and not in hostile mien. I am very sure that Southern California will very soon be in the same attitude as the people of France, Italy and England, and will wish the bees brought to the orchards, and not cry for their removal. Already the orchardists in most localities are converted to the right belief.

The following is the position I took in the premises:

It is a truth demonstrated beyond question, by Darwin, and by many other scientists, by our Department of Agriculture, and by my own experiments, that many flowers are sterile to their own pollen, or to that of the same variety of fruit. It is also true that pollination is always necessary to seed-production, and usually to the production of the pulp in case of our berries, pomes, drupaceous fruits, etc. There seems as little doubt but that some fruits usually or sometimes fertile to their own pollen, or to that of the same variety, are under less favorable circumstances sterile to the same. Thus, the Bartlett pear is generally sterile to Bartlett pollen, tho occasionally under favorable circumstances it fruits well tho no other pears are in the vicinity. Yet in these exceptional cases no one knows when the tide will turn, and the Bartlett fail to produce unless other pears are hard by to insure cross-pollination. We are sure, then, that mixing of fruits so as to secure cross-pollination is absolutely essential in almost all cases, to the best success, and in a large proportion of cases to any success at all.

Again, this cross-pollinating requires insects to carry the pollen-grains from the anther of one bloom to the stigma of another. Before the orchards were planted the fruits were less numerous, and the solitary scant-insects were sufficient to do the work; but as we mast the fruits in great orchards, the native solitary insects were all too few, and fortunately the social bees were brought along with the fruits. Even the social native insects, like social wasps and bumble-bees, are very few in spring when the fruits bloom, and so are absolutely inadequate to pollinate our orchard trees. The non-seeding of red clover for the early first crop is because the bumble-bees are too few to properly cross-pollinate the bloom. It is possible that in this case the flowers are fertile to the pollen of other red-clover blossoms but not to their own.

The orchardist then must have the bees. To drive them away would be to kill the goose that lays the golden egg.

Again, bees never attack sound fruit. They only come when bird, wasp, or sultry weather combined with over-ripeness break the rind and cause the juice to exude. Possibly bees could bite open the skin of the fruit, but positively they never do. Yet let the juice once ooze, and then the bees quickly hie to tree or drying-tray and leave little behind to show what once was there.

When we remember that nearly 90 percent of the ripe fruit is juice, and that the bees take this, we see that little would be left. The juice often oozes from very ripe fruit, and so bees are often in the vineyard to the great annoyance of those who would gather in the vintage. Fruit on the trays in the drying-yard has the skin removed, or is cut open, and so the bees may take most of it unless repelled by sulphuring, which is now generally done. We see, then, that bees are a disturbance at times, and annoy the orchardist greatly. Then must the apiarist be driven off? Not so, say the European pomologists. They want the bees, and there is no quarrel between the two industries. Not so, say the most intelligent fruit-men of our own State and country, for we must have the bees to aid us in time of bloom.

What then? It may be wise to move the bees temporarily on rare occasions when the annoyance is most severe. If so, who should bear the expense? Surely, not the bee-keeper, for he was the pioneer in the region, and has a first, or at least an equal, right. The removal is for the fruit-man, and he should be at the most, if not all, of the expense. But each should know all the facts, that bees are never harmful to flowers, but always necessary to best success, and that they are only injurious to wounded fruit; that if they are to be temporarily removed it is for the good of the fruit-man, and he should bear the expense. The harm is usually not great, and the annoyance usually almost nothing, so that if the bee-men and fruit-men donate the one to the other their choicest products, and cultivate good-feeling and not enmity, each may be a tremendous blessing to the other, and all the best of neighbors.

Los Angeles Co., Calif.



Advantages of Docility in Queen-Bees.

BY W. W. M'NEAL.

JUDGING from the superior excellence of a queen reared to supersede the old one, I am led to believe that to further domesticate our bees, all queens should be brought up in accordance with conditions as therein found. At such times the desire of the whole colony is in the interests of the home they have. The nurse-bees are not intoxicated with that wild dissipation which culminates in swarming, and which comes from a knowledge of the purpose queens are reared during the flush of the honey season.

To take away the reigning queen when the colony is enjoying a flourishing situation, in the hope of securing a number of young queens, and then expect the mother-bee to duplicate herself in these, it seems to me, is entirely wrong. The colony is thrown into a state of intense excitement and worry, if not frenzy, and more especially is this the case if the bees are blacks or hybrids, the kind so frequently chosen for cell-builders. Now, surely, the nurse-bees will not, cannot at such times, furnish nourishment that will develop a queen-bee possessing the most steady and pleasing temperament. If queens so reared are allowed to receive their first impressions from angry, loose-footed bees, or bees madly bent on swarming, it would very materially affect their good behavior, and the tie that binds them to home and its sweetness.

I believe it advisable, even when rearing queens in colonies having a laying queen, to remove the combs on which the cells are built to the nursery as soon as they are capped. Then when the queens emerge from the cells their first lesson will be at the hands of the apiarist. I have retained young queens in cages containing honey and comb, away from any but very young worker-bees, and permitted them to take their first flight from my hand or coat-sleeve. They would return, barring calamities that sometimes overtake them while in the air.

If they are handled gently, never blowing smoke or one's breath on them, their action soon contrasts largely with that of virgin queens which have remained in the hive. I see no reason, if one chooses to take the pains, why the mating of queens could not be secured before giving them back to the hive-bees at all. Those large, supersedure queens, when fully developed and on the combs, behave as if they had a realizing sense of being in their proper element, and were fully entitled to protection and respect. Not only are we to expect strong, gentle workers from gentle queens, but more uniform success in introducing them into strange colonies of bees. Any one who has had experience knows that much depends upon the queen being cool-headed and quiet at such times; and in any colony of bees they are much less liable to be balled when it is necessary to manipulate the combs.

Scioto Co., Ohio.

Some Observations on Queen-Rearing.

BY HENRY BOSWORTH.

I AM one of those who believe that we should improve upon Nature in whatever line we may be engaged; and just how is the best way to accomplish this object, is the great secret of success. It has been my good fortune to be engaged in apiculture nearly all my life, and while the occupation has been fairly remunerative, it is not from this cause alone that I have continued in the business.

I am very much interested in the study of the operations of the honey-bee in all its phases, and particularly in queen-rearing, in which I have had some experience, and will give a glimpse of the result of my observations.

First, the colony to do the work should be strong in bees, and, I think, the stronger the better; if not so naturally, it should be made so by feeding, or by supplying bees from some other colony. Many talk about the *swarming impulse*, but I prefer the *business impulse*; and if there is not honey enough coming in to make this impulse, you must secure it by means of feed.

When you have the colony in the right condition, make it queenless, and let it form queen-cells; let it remain in this condition until the larvæ are too old to rear queens from; then overhaul and destroy all queen-cells, which will put the colony in the right condition to rear queens from eggs that you may supply. To obtain the eggs for this purpose, I place an empty comb or two, or more if desired, in the center of the brood-chamber of my best breeding queens two or three days before I wish to use them in the prepared colony. When the queens are all started from the egg, they will all hatch about the same time, and you may expect that they will be ready to cut in about 14 days; or you might wait a little longer.

I now divide the colony into which the combs with eggs have been introduced, into nuclei—one or two frames each—and insert one of these newly-formed queen-cells in each nucleus. If there are enough cells to supply the demand, I make the nuclei but one frame each; and if there are more cells than frames, which is often the case, take frames of comb and brood from other hives. Make the nuclei in the afternoon; shut the bees in until the next morning, then liberate them, and but few will go back to the old hive. I want brood in each nucleus, and before the queens are ready to take their "wedding flight," they should be supplied with unsealed larvæ.

Geauga Co., Ohio.

When to Put Supers on the Hives.

BY C. P. DADANT.

A BEGINNER inquires as to the best time to put on the supers, and how he can ascertain what colonies are likely to need them, as he has been told that it is a mistake to put supers on a hive when the bees are unlikely to be able to put honey in them.

The time to put on supers, whether for extracting or for comb honey, is just before the beginning of the real harvest or at its very inception. When the harvest is about to begin, or is beginning, the least delay is injurious, as the possible lack of room may cause preparations for swarming on the part of the strongest colonies, and it must be borne in mind that these colonies are the ones upon which we should depend for the best of the crop.

In this, and other States near us, it is of no use to expect a flow of honey sufficient for surplus before the blooming of the white clover. There are exceptional cases in which the fruit-bloom has produced a surplus, but I believe that, if such cases could all be reported, we could still count them on the fingers, every year, in Illinois. So it is of little purpose to worry about getting ready for the crop until the white clover gets into pretty full bloom and the weather is satisfactory. I have seen—and so have probably a number of our readers, among those who have had practical experience—I have seen the bees starving, actually throwing out their brood, early in June, while the pastures and meadows were turning white with the abundance of the bloom, just because of a few cold, rainy days. The hives being very populous, and having a great deal of brood in all stages, and a great many young bees hatching daily, the consumption of stores is rapid, and a bad turn in the weather makes it imperative on the apiarist to closely watch his colonies. Even with a plentiful bloom and seemingly fair weather for honey, there is sometimes such delay in the crop as to disappoint the eager bee-keeper. The causes of a production of honey in the calyx of the flowers are a

mystery to us all, so we are still unable to ascertain, otherwise than by an ocular examination of the hive, whether the bees are getting much of a surplus.

The first signs of a beginning of the crop are detected by the whitening of the combs by the bees. The harvesting of a little honey prompts them to repair the combs that have been cut down by the unsealing of the cells that contained the previous crop, and they hasten to repair these and add fresh wax to them, just as soon as they feel that there is enough surplus produced to justify them in using a part of it in that way. Even the blackest and oldest combs are usually refreshed, and at the first signs of this evident encouragement one should lose no time in putting on supers on all hives that show it. The fresh honey itself might be detected even a day or two sooner if the combs are lifted out, for it drips out just like water, being thin and unripe.

We would put extracting-supers on every colony that shows whitened combs, but the comb-honey supers ought to be withheld from such colonies as have not yet filled all their combs with brood, unless such combs be removed and the space be reduced with a dummy or division-board; in which case the space over the brood may be supplied with supers.

When we run for extracted honey it matters but little whether the bees still have room in their brood-chamber when we put on the supers. Unless the weather is cool, and the space added is entirely too extensive, there is no drawback to the supplying of the hive with a liberal amount of empty combs. With large hives and populous colonies in very bright seasons, we have placed on two supers at one time, giving room for 120 pounds at one time to the best colonies. It is a fact that a very populous colony, in exceptionally good seasons, can fill two supers in an incredibly short time. In 1884 we had colonies with three tiers of supers which were emptied and again filled five times over. This was from the fall crop. In the season of 1889 we extracted three times, during the clover bloom, from a number of colonies that were supplied with three supers.

When running for comb honey, if the supers are put on a hive which has unfilled combs below, we need not look for any surplus until those combs are all filled. Such colonies would better be used for increase. It is our method to take the honey crop from the strongest colonies, and obtain our increase, whenever any is wanted, from the colonies that cannot be expected to yield any surplus. This will be the subject of another article.

Hancock Co., Ill.

Keeping Down the Swarming-Fever.

BY MRS. L. C. AXTELL.

PUTTING on sections early seems to keep the swarming-fever down more than anything else we ever tried. Put them on as soon as it can be done without chilling the brood and retarding brood-rearing. One year, when we had not kept bees many years, we put on the supers, but gave only a few sections in each super, intending to put them on as soon as was needed, but the bees became crowded suddenly, and swarming was fearful; they swarmed over and over again—no time to get the supers filled, so many swarms to care for. So we have learned also to have supers all filled, for a super can as easily be put on as only a one-pound section.

Large entrances in hot weather are a help to keep down swarming, and to keep bees working right along in the supers. With our hive we often (if the hive is in the sun) take down the front side of the hive, or the east side, leaving up the division-board that is at the side of the combs, and is raised from the bottom-board the height that the brood-frames are raised, as we use the Quinby style of hive, and the frames rest on the bottom-board.

Also, we think that bees swarm worse with the use of separators than without, and so we have not used separators for a number of years. Some of the combs are not quite so straight and even, but we have no trouble to sell all the honey we can produce. The greatest trouble, of late years, is that they don't store honey as they formerly did. Every year we hope for the better.

AN EXPERIENCE IN HAULING HONEY.

Some years ago a young man helping us with bees went over to our out-apiary and extracted about two-thirds of a barrel or so of honey. He laid the barrel on its side in a wagon, and wedged it up so he thought it would not turn over and roll about. As it was late he drove pretty fast, and when he got half way home a man called to him and

wanted to know what he had in his wagon. His first thought, the young man said, was to answer back it was none of his business, and drive on, but he answered, "It is honey," and the stranger told him it must be spilling out. The young man looked back, and there the barrel had turned partly over, and was pouring the honey out of the bung-hole into the wagon-bed among the straw, and it was leaking in a stream thru the wagon-bed. He saved some of it, what he could, in pails he had along for feeding-back, and righted up the barrel, as it was not quite all spilled out.

Warren Co., Ill.



Planting for Honey—The Clovers.

BY F. A. SNELL.

AT the close of fruit-bloom, at latest, the surplus receptacles should be in readiness for the crop of surplus honey which will usually come in with the opening of the white and Alsike clovers. Bee-keepers should see to it that all available space along roadsides and fence-corners is occupied with white, Alsike or sweet clover. Our pastures for stock should be well seeded with white or Alsike clover, or a mixture of these seeds. The pasture thus afforded gives an abundant amount of food, and that of the very finest quality for cattle, sheep or hogs. For the dairy it is an established fact, as it has been fully demonstrated, that a greater amount of milk will be secured from pasture of either white or Alsike than from red clover.

In an experience dating back into the 60's, I have tested and observed quite closely as to the Alsike. My first pound of Alsike clover seed was bought in 1867, at a cost of one dollar. The seed was sown, and the little plat was a mass of bloom the following season, and I was much delighted with the plat, its beauty and utility. The bloom was covered with bees to an extent I have never seen surpass anywhere or any time. From this early planting I have handled this clover as pasture and hay, up to the present time, or 31 years.

I may mention right here that in pasturing upon either white or Alsike clover, I have never known any trouble from cattle bloating, as is often the case when pasturing on red clover. The hay from Alsike clover is of the finest quality, and is relished by all stock. The stalks are fine, and not woody like red clover hay, so it is all eaten. This clover may be grown alone for seed or food, or sown with timothy; when with timothy the latter prevents the clover from lodging to quite an extent. In good seasons I have harvested three good loads of Alsike hay per acre. This clover seeds at first blooming, and yields well in seed, which usually brings a good price. As honey-plants the white and Alsike clovers are unsurpassed, and every farmer bee-keeper should grow all that can be used to advantage on his farm.

There cannot be too much done to give us a full bloom for our bees; with the bloom secured, good crops of honey may be had, but if we are negligent we hardly deserve such.

If the Alsike is mown when just out in bloom, it will bloom later in the season, and thus prolong the honey-flow, which might be desirable when the white clover bloom is profuse earlier. The Alsike is very hardy, and will winter well when red clover is killed out almost wholly. I have never known the Alsike to winter kill in the 31 years that I have had experience with it, which is quite the opposite to red clover, as any one of experience knows. Bee-owners can and should induce their neighbors to grow this useful plant.

In many localities white and Alsike clover bloom is the only source from which a surplus honey crop is secured, and too much effort cannot be made to secure their growth. The fertility of the land is improved by the growing of clover, which is also of importance to the farmer. The basswood bloom, where that tree is grown, follows that of the clovers, or comes in before the clover bloom ends—in our latitude, from June 25 to July 5.

Of all the honey-producing trees we have, the basswood takes the lead. When conditions are favorable the yield from its bloom is immense. The honey this tree affords is in quality not equaled, according to my taste, by any other tree or plant. The planting out of the basswood tree along streets, highways, and in groves on our farms, has been sadly neglected. It is high time that all bee-keepers who can do so should be doing this work. Our groves are disappearing at a sad rate, and if nothing is done in this direction soon, many of us who have in the past secured good crops of this fine honey will have none at all, which means a good deal, as in some seasons it has been our early

bloom that gave a surplus. By early is meant during our summer season, in this case.

Sweet clover is an important honey and pollen producing plant, and is well worthy of culture. There are hundreds of acres in every township where worthless weeds now grow, that could be sown to sweet clover, and be of much value to apiarists at least. The farmer bee-keeper would be well rewarded by sowing this for his bees and stock. When stock are turned on it to pasture when young it is fed down and thus kept tender and sweet for the entire season. Were enough sweet clover grown near an apiary the crop of surplus honey from this source would, with good weather at blooming time, pay a nice profit. With us not very much is grown, but it helps to keep up brood-rearing. In some localities it is quite extensively grown, and good crops of honey realized. All who can do so should extend their planting of the sweet clover.

Carroll Co., Ill.



Italian Bees' Honey vs. that of the Blacks—Bee-Pasturage.

BY G. H. ALLEN.

I WAS greatly amused when I read Mr. Bates' article, on page 19, on "Why Italian Bees Store Better Honey than the Blacks," and more so when "Stenog," in *Gleanings*, went so far as to say that it is pretty hard to prove he (Mr. Bates) is wrong, and follows with a long train of reasons. However, I think Cogitator, on page 82, gives the article about its right weight when he admits that Mr. Bates has made some headway, but concludes by saying, "Now, if some one will tell us why black bees store better honey than the Italians—why, then we'll have a mitten on each hand." Now, I am not going to put that mitten on the other hand, but just want to have my say from a practical stand-point, and leave the theory to Mr. Bates and "Stenog."

I commenced to keep bees in 1890, all blacks. In 1891 I introduced Italian blood, and since then I have had blacks, Italians, and almost all grades of hybrids, with a sprinkle of Carniolan blood. Now when the honey is captured before extracting there is no difference in the honey of either strain or mixture. I have never succeeded in getting pure Italians to finish up comb honey equal to the blacks, in color. The Carniolans were fully up to the blacks, and usually high-grade hybrids do first-class work.

EXPERIENCE WITH HONEY-PLANTS.

But there are other questions which interest me more than the above, which are discussed in the "Old Reliable" from time to time, and none more so than pasturage. I will give my experience with a few of the leading honey-plants. I have tried crimson clover for three seasons, and for this section it is a success, and coming just after fruit-bloom it has proven a great boon to my bees. I practice sowing in corn at the last cultivation, or with buckwheat. I prefer to have it sowed from June 20 to July 1, as it is not so liable to winter-kill sown this early; but I have sown as late as Aug. 15, with a good stand the following spring.

Sweet clover yields abundantly here, but grows successfully only on rich land. (I am just out of the lime-stone belt.) I find the seed propagates best when sown during the winter, and when thus sown it will hold its own in all waste places, provided the ground is rich. Italian and sweet clover I have made pay from a dollar-and-cent point of view.

I have realized considerable satisfaction in experimenting with a few other honey-plants. Alfalfa is a failure here, growing luxuriantly until commencing to bloom, when it turns yellow and dies; if cut, it will start up green again.

Spider-plant yields abundantly if the weather is just right, but the care in raising will outweigh the profits.

I failed to mention Alsike in the above, for aside from its honey I would not think of discarding it, for here in mixtures with other grasses it is fully equal to the red, while as a honey-plant it has no equal in this section, except cottonweed, which here exceeds linden in the amount of nectar secreted, when linden is at its best, and is a much more certain yielder, with a longer period of blooming. I have wondered why it is not more spoken of as a honey-plant; probably it does not yield in all sections as it does here.

Pleurisy-root yields scantily here, while Mr. Heddon prizes it highly as a honey-plant.

Monroe Co., W. Va.

Foul-Brood Germs—Spores and Bacilli.

BY THOS. WM. COWAN.

I HAVE read the correspondence respecting the destruction of foul-brood germs contained in honey, by means of boiling, and it appears to me that, when giving advice with respect to such a destructive enemy as foul brood, we cannot be too cautious, and had better err on the side of safety than the reverse.

From the promiscuous manner in which many talk about microbes, bacilli, spores, or germs, it is quite evident that they do not realize that a very great difference exists between them; and conditions that will be destructive of the one may not have the slightest effect on the others. In respect to the particular organism with which we have to deal in foul brood; viz., *Bacillus alvei*, we have to contend with it in two different forms and stages of life, in one of which the vitality of the organism is easily destroyed; while in the other the same organism, but under a different form, is capable of retaining life, and germinating into the condition of the previous stage, even after what would appear the most damaging influences, such as long lapse of time, drying, heat, cold, and chemical re-agents. The bacillus condition is the first stage of active life of this organism; and it remains in this state, splitting and multiplying as long as it has nutrient material to live upon, and other conditions are favorable. A bacillus is rod-shaped, and when, in process of time, it has attained full growth, it splits in two, each of these taking up an independent existence, and going thru the same process; and as it has been shown that as many as two generations can be reared within an hour, and as the same rate of progression can be kept up by each individual in suitable nutrient media it is not astonishing that foul brood spreads rapidly.

Now, while in this bacillus stage it is not difficult to kill the organism (a temperature under 160 degrees Fahr. will do it), and there are a number of chemical re-agents which even in great dilution will destroy bacilli. It is, however, very different in the subsequent stage of existence of this microbe. When the bacilli, or rods, have multiplied to such an extent as to exhaust all the nutriment upon which they were feeding, or come in contact with surroundings inimical to their active existence, the rods gradually turn into spores. At a certain point of the rod a bright speck appears, which gradually enlarges at the expense of the protoplasm in the rod, until in its fully developed state it assumes an oval shape. The sheath swells, and the bacillus looks much thickened; then the sheath breaks, and the spore becomes free.

Now it is when the rods have become spores that the danger arises, because it is very difficult to make many understand the great difference between them and bacilli. They are analogous to seeds of plants, altho they differ from these in possessing greater vitality. Spores retain the power to germinate into bacilli after the lapse of long periods; and Dr. Klein, one of our great authorities, says, "There is no reason to assume that these periods have any limit." We have, at any rate, had ample evidence in our own experience to show that spores have retained their vitality for many years. These spores are not only capable of germinating into bacilli after a long period of time, but will endure heat, cold, drying and chemical re-agents—influences that would be destructive to bacilli themselves. The temperature of boiling water does not destroy them unless considerably prolonged, altho a very much lower temperature, as I have already stated, will kill bacilli. If we had to do with bacilli only, in every case bringing up the temperature to 212 degrees Fahr. would be amply sufficient; but with spores it is different. A few minutes boiling will destroy some, because all the spores have not the same degree of vitality; and in this they resemble seeds of plants. It is well known that some seeds will germinate much sooner than others, and some will not germinate at all.

Experiment has shown that, to destroy all the spores, prolonged boiling is necessary, or they must be subjected to a higher temperature, such as is obtained from steam under pressure. Spores are unable to withstand steam, even for a few minutes, at a temperature of 212 degrees Fahr.; but this could not be applied to honey, as the spores would have to be separated before they could be acted upon by the steam.

I have had frequent demonstrations that many do not really understand what boiling, from a scientist's point of view, is, and that is why the results are frequently so different. They are content to think that the liquid is boiling if they see it bubbling, whereas the bulk of it may be sev-

eral degrees below the boiling-point if stirred and thoroly mixt, and, of course, the larger the quantity the longer it takes to raise the whole mass to the boiling temperature. Experience has shown that it is not safe in every case to depend upon 10 or 15 minutes' boiling. Several boilings would be better, but not so convenient to the ordinary bee-keeper. The rationale of this is that, at the first boiling all the developed bacilli are destroyed; then suppose a nutrient medium and other favorable conditions to exist in the honey, the unaffected spores would germinate into bacilli, and could be destroyed in the next boiling. A third and even a fourth boiling might be necessary to destroy the remainder. Failing this method of procedure it is safer, with our present knowledge of the behavior of spores, and taking into consideration the appliances at the command of the average bee-keeper, to insist on prolonged boiling.—Gleanings.

April 18, 1899.

CONVENTION PROCEEDINGS

Report of the Chicago Bee-Keepers' Convention.

BY HERMAN F. MOORE.

[Continued from page 291.]

Mr. H. S. Jones, of this (Cook) County, followed with another paper on the same subject as that of Dr. Mason, viz:

How I Handle My Bees in the Spring.

To begin with, they get little handling by me in early spring. No doubt it was intended that I should give my experience in managing my bees in early spring. I must start from the close of winter, then if you will follow me thru until spring you will have my whole management.

In the first place, I must describe the hive I use. I make all my hives by hand, buying the lumber in boards, and make it complete from bottom to cover. My hives are all double-wall, without any air-space between, and painted on the outside. You will no doubt ask why I make a hive thus. Because the moisture from the bees is taken up by the inside board; the outside board being painted, warms the inside quickly; the inside board being connected to the outside by direct connection conveys the heat to the inside much quicker.

I winter my bees on the summer stands without any protection, such as fence, etc., until along in January, when I commence to shelter and start the spring managing. On sunny days I open every hive, loosening the packing, which is excelsior, so that the sun goes direct into the super. I watch the sun very closely, in case it should cloud up.

The hives are at once packed and covers put on. This is continued until along in April, according to the weather. Now it is time to examine all colonies, and give them clean houses. We all want clean houses in springtime, so do the bees. I have several new hives on hand, dried and painted. Starting at one end of a row I take out the frames and note their condition, jot it down in my book, opposite the number of the hive. At a glance I know just the condition of that hive; if short of stores I can give sealed or unsealed honey, as the case may demand, and pack them good and warm.

Why should not bees treated thus give good returns for trouble taken? I always give where needed new worker-comb; this will insure larger and stronger bees. Mr. York, when at my apiary last year, noticed how large my bees were. That is the way I got them.

Sometimes I spread the brood, but not unless it will stand it. I do not advise spreading except under very favorable signs; sometimes I stimulate by feeding honey. Bee-keepers should have enough extra combs on hand for times of need.

As soon as possible after the middle of April I replace all old queens with young ones. In this way there is no loss of time, and the bees are not so liable to swarm. I keep very close watch of all colonies to see that their little wants are supplied promptly.

The extra-strong colonies I divide early in May, giving one-half a young queen, and nurse them along until basswood bloom or sweet clover, when they are ready for busi-

ness. I give my bees more care during the early spring than at any other time of the year, because this is the time they need more, and in doing this I am looking after my own interests.

In the first three months of winter there is always plenty of bees in a colony prepared for winter, and as the winter advances they get less in number; after the first of the year they will not be so strong, therefore they need more protection, and some shelter, which must be given if wintered out-of-doors. I take out the packing, according to the weather, until it is all taken out. Then they are ready for supers. I remove the Hill's device and take a good, sharp scraper and scrape all propolis from the tops of the frames. Now the bees are ready for the harvest.

Cook Co., Ill.

H. S. JONES.

Mr. J. T. Hammersmark then opened the discussion in an interesting manner as follows:

How I Handle My Bees in Early Spring.

Because I am interested in the bee-cause, and not believing in simply being a drone in the hive of bee-keepers, but rather a worker, therefore have I accepted the invitation to write an essay on the subject.

In our line of business we all know, or at least we all should know, that to set certain dates for the accomplishment of certain duties about the apiary is an impossibility, for the reason that our work must be done when the weather is suitable, and when the bees can fly. The first thing that I should do with my bees in early spring would be to assist them to clean up their house, no matter whether they were wintered indoors or on the summer stands. During the winter months the older bees die off, and if they do not become clogged up between the combs in their descent, they fall to the bottom-board, which, by the time spring comes around, generally becomes thickly covered with these dead bees. Bees also sometimes die in patches on the comb, caused by their leaving the main cluster on some mild day. But the weather suddenly turns very cold, and they cannot get back to the main cluster where they can keep warm, and are therefore soon chilled thru and die. These and all dead bees should be brushed off the combs, and the cemetery below them should be removed and a clean, fresh bottom-board put in its place. All this is a great help to the colony, and it seems to appreciate this help, for one so treated will build up strong in numbers very much faster than one not so treated.

I would now, should I find a weak colony unite it with a stronger one, so that the two would make one good colony. Feeding the bees with sugar syrup, or, better still, full or partly full combs of honey, is also now in order, for we must see to it that there is plenty of honey in the hive so that the bees shall not be saving of food, and thereby limit the queen in her work of egg-laying, for she must eat plentifully in order to lay eggs profusely. Then the larvæ also have to be fed, and the bees themselves have to live, so you see it is very important to have plenty of honey in the hive all the time.

If any colonies are found to be queenless at this early investigation, they should be given a queen, or a comb containing brood and eggs from another colony, from which they can rear a queen. A sharp lookout should be kept on these queenless colonies, as they are liable to be robbed at any time now.

I do not believe it pays to try to build up weak colonies the first thing in the spring, but unite them, and in a short time you can divide them to advantage, if you desire to increase your stock of bees.

In April, when the state of the weather permits, I would cut out all surplus drone-comb. We can leave this work until a later period, but see what our neglect will cost. The queen wastes her time and energy in laying these eggs; the bees waste their time and your honey in nursing and caring for these big, worthless babies. But this is not all, for you must have a hand in this matter also, and cut out this mussy mass of worthlessness if you want the best results in honey. Had I a colony whose population had become so decreed during the winter confinement as to be able to care for say only four combs, I would take the surplus combs away and follow up these four combs with a division-board, for by this change they could keep much warmer, which would also induce the queen to more vigorous egg-laying. When needed, these surplus combs should be given back, one or two at a time, moving the division-board back each time until their regular set of combs are returned, then the division-board should be removed from the hive.

Water placed about in the yard in small wooden tubs with some sort of a float in them to save the bees from drowning in the water is, I believe, of great importance, for on cold days when the bees can barely fly, they can get their supply at home without flying away to find a drinking place. Also, to supply them with rye-flour before they can gather pollen is of some use. But I do not think this is as necessary as the water question. The entrance of the hive I would keep contracted down to an inch or two, as this will help to retain the heat which is of so much value just now. When the weather becomes warm and settled, then these blocks or sticks should be removed, and full entrance be allowed.

As the topic of this essay calls for *early* spring management, I shall not proceed any further, but will leave you right at this point to finish the season yourself. To the bee-keeper, what I have said is old, and experience that he should have gone thru; but if the novice or any one else shall derive any benefit from this paper, I shall not consider it work in vain. A great deal more could be said on this subject, still if what has been read in your hearing is followed out in deed, you are on the right road for strong colonies by the first of June, and all ready, so far as bees are concerned, for the big honey crop in 1899—if it comes.

Cook Co., Ill.

J. T. HAMMERSMARK.

A general discussion of the topic followed, by Dr. Peiro, Dr. Miller, C. Beers, H. M. Arnd, Mrs. Stow, Mr. Hogge, and others.

The next number was a bee-song by Ferdinand Moore, the little son of the secretary, which was well received and applauded.

[Concluded next week.]



CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

Splints for Stiffening Foundation.

Where can I get, or how can I make, the splints for stiffening foundation in the frames? MINNESOTA.

ANSWER.—I got mine from the A. I. Root Co., but any manufacturing establishment that has machinery for slicing separators can make them. The ordinary wood separators are cut into the proper length, the thickness being 1-16 inch, then a bunch of them can be sliced into 1-16 splints. The first I used I sliced out of separators with a pocket-knife, but that's a slow way.

Fastening Foundation in Frames.

DR. MILLER:—I see in Gleanings for Dec. 15 an article about sticks in frames for fastening the foundation. 1. Please let me know the size. 2. Will these answer for extracting without any wire in frame? 3. In speaking of the engraving under No. 1, "half bottom not yet nailed on," does this mean that there are holes in top and bottom bars for insertion of the sticks? 4. How are the sticks imbedded in the foundation? 5. Which foundation, "medium or light," is best? W. C. MYER.

1. The length is $\frac{1}{8}$ inch less than the inside measure from top to bottom bar, and the sticks are 1-16 inch square. The reason for having the sticks $\frac{1}{8}$ inch shorter than the space between top and bottom bar is that it is easier to handle the shorter sticks in putting them in; and, besides, basswood (of which timber the sticks are made) increases in length as well as thickness when it swells, and when the wood is thrown into boiling wax I think it likely that it increases in length.

2. Yes. I extracted about 300 pounds from such combs

that had been built the same summer, and there was no trouble.

3. No. The sticks do not necessarily touch either top-bar or bottom-bar, and there are no holes to let them in. The object of having the bottom-bar in two pieces is to allow the foundation to go between the two parts. The foundation is cut $\frac{1}{2}$ inch wider than the inside depth of the frame. That allows $\frac{1}{4}$ inch at the top to go into a saw-kerrf in the top-bar, and $\frac{1}{4}$ inch at the bottom between the two parts of the bottom-bar. The foundation is cut so as to make a close fit to the end-bars at each side, the frame is put on the board, such as is commonly used for putting foundation in frames; the foundation is slipped into the saw-kerrf of the top-bar, and then the second part of the bottom-bar is put in place, a single small wire-nail is driven at the middle to fasten the two parts of the bottom-bar together, and then the remaining nail is put into each end of the bottom-bar. Top-bars and end-bars are $1\frac{1}{2}$ inches wide, and each part of the bottom-bar $\frac{1}{2}$ inch wide. That allows $\frac{1}{4}$ inch between the two parts of the bottom-bar for the foundation.

4. If you put in the dry sticks, the bees will gnaw them out every time. Put a little bunch of the sticks in melted wax, keeping the wax where it will stay hot. At first the air and moisture in the sticks will make a great frothing, and you will not imbue any till all settles and becomes clear. Then with a pair of tweezers, or something of the kind, lift a stick out of the wax, lay it in place, and press it into the foundation with a presser made of a little board about as long as the sticks, or not quite so long, and about $\frac{3}{8}$ inch thick. The edge that presses in the sticks must be kept soaked in water, so the wax will not stick to it. Five sticks are used in a frame, one about an inch from each end-bar, the other three at regular intervals. In rare cases I've had the bees gnaw at the sticks, even when cooked in wax, but I don't know why.

5. I have used rather heavy foundation (some I've had on hand for a number of years), but it may be that light foundation would do just as well. Certainly just as light foundation can be used as if wire replaced the sticks.

These sticks allow the combs to be built solid to the bottom-bar (but sometimes the bees will dig under), and I know of no advantage in any way that the wires have over them.—Gleanings.

Blacks vs. Italians as to Hardiness.

Are Italian bees as good to stand the cold as blacks? I had five colonies Italianized last year, and they all died. I had 15 colonies of blacks and lost one; they were all in one row in double-walled hives. A good many bees died in this county the past winter.

NEW YORK.

ANSWER.—I don't know whether Italian bees, taken as a whole, differ in hardiness from blacks. It is quite likely that *your* Italians are not as hardy as *your* blacks. But you must remember that all blacks are not alike as to hardiness and other qualities, and also that Italians vary.

Pink Comb and Honey.

Why do bees build pink comb and store honey of the same color in the brood-frames? Some of the combs in our city hives are thus colored.

MARYLAND.

ANSWER.—I don't know what plant they are working on to produce such results, but it is well known that the color of the honey, and to some extent the color of the comb, depends upon the kind of flowers visited.

York's Honey Almanac is a neat little 32-page pamphlet especially gotten up with a view to create a demand for honey among should-be consumers. Aside from the Almanac pages, the forepart of the pamphlet was written by Dr. C. C. Miller, and is devoted to general information concerning honey. The latter part consists of recipes for use in cooking and as a medicine. It will be found to be a very effective helper in working up a home market for honey. We furnish them, postpaid, at these prices: A sample for a stamp; 25 copies for 50 cents; 50 for 70 cents; 100 for \$1.25; 250 for \$2.75; 500 for \$4.50. For 25 cents extra we will print your name and address on the front page, when ordering 100 or more copies at these prices.



Blocking Up in a Hot Climate.—In Gleanings, J. K. Hill, of Texas, says he has been troubled every year until the past year with combs melting down in hives standing in the sun, there being a $\frac{1}{2}$ -inch entrance the whole width of the hive. Last year he put a $\frac{3}{4}$ -inch block under each corner of his hives and never lost a comb. Only 2 swarms came from 125 colonies, whereas in previous years swarming had been very troublesome.

How Should Frames Run?—At the Ontario convention the great majority preferred what is called the "cold system," with the frames running toward the entrance. One reason was that the hive could be tipped forward so water would run off, also so that late honey for winter would be stored at the back end, and Mr. Hall wanted the back end of the hive at least four inches higher than the front, so that it would be warmer.—Canadian Bee Journal.

When to Put on Sections.—In the Canadian Bee Journal objection is made to leaving colonies without sections till after the harvest has commenced, thereby inducing the bees to swarm, and it is also objected that in some cases mischief is done by putting them on before the light honey comes, having dark honey in the center of a section. Some advise putting on extracting-combs to catch the first flow of dark honey, then giving sections when the light flow starts.

To Keep Pollen Out of the Extracting-Super was discussed at the Brantford convention reported in the Canadian Bee Journal. One way was to keep the queen out of the extracting-super, but it is not so clear just what was meant by Mr. Armstrong saying, "The queen will not be able to go thru the excluders loaded with pollen." Mr. Atkinson thought there would be no trouble if two stories were allowed for brood. Mr. Alpaugh thinks there is less trouble if the super combs are well drawn out.

As to Amalgamation, Stenog, the gleaner of "Pickings" in Gleanings, says:

"Touching the union of the 'Association' and the 'Union,' Mr. York well says, 'The door is open for the Union to come into the Association whenever it decides to cast in its lot.' That's it. One of the associations must simply cease to exist, and its members be incorporated in the other. Those who are trying to unite certain other organizations nowadays would do well to read Mr. York's words. The only way is to find the best, and annihilate the others by disbanding in favor of the better."

Handling Hoffman Frames.—The editor of Gleanings refers to an article in American Bee Journal for April 6, by C. Davenport, whom he styles "one of the most practical writers in all beedom," and commends the tool by which Mr. Davenport handles his frames so well. One feature that was not mentioned, is that of handling two or three frames at a time, whereas with loose-hanging frames each frame must be lifted out separately. Mr. Root thinks this an important matter. He disagrees with Mr. Davenport as to the edges of the end-bars, preferring the V edge to the plain.

Large Frame Hives vs. Two-Story Hives.—A. N. Draper discusses the matter in Gleanings. He quotes Langstroth Revised as saying that the Quinby frame is too long and the Langstroth too shallow, advising beginners to use a frame as long as the Langstroth and as deep as the Quinby. After having handled as many as 200 colonies in Langstroth frames three stories, and afterward trying the large hives and frames, and especially noting the difference in wintering, he is a strong advocate of the large frame. Mr. Draper challenges Editor Root to make the experiment of having 30 or 40 ten-frame hives the same as the Langstroth, only with frames $2\frac{1}{2}$ inches deeper, agreeing to pay the expense of making them if after three years' trial the editor is not pleased with them.

GEORGE W. YORK, Editor.



PUBLISHED WEEKLY BY

GEORGE W. YORK & COMPANY,

118 Michigan St., Chicago, Ill.

ONE DOLLAR A YEAR.



SAMPLE COPY FREE.

[Entered at the Post-Office at Chicago as Second-Class Mail Matter.]

United States Bee-Keepers' Association.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

Membership Fee—\$1.00 per Annum.

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Place and Date of Next Meeting:

IN FRANKLIN INSTITUTE,
15 South 7th Street, between Market and Chestnut Sts., Philadelphia, Pa.,
September 5, 6 and 7, 1899. Every bee-keeper is invited.

VOL. 39.

JUNE 1, 1899.

NO. 22.



NOTE—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound.

The Spraying Law of New York came near being repealed, according to reports in Gleanings. W. F. Marks says:

"The opposition stole a march on us, and got practically thru the Assembly before we knew it; but when their bill reached the Senate, thanks to Senator Raines, who was watching for it, it was *promptly killed*."

Intelligent horticulturists know that there is no need to spray when trees are in bloom, and that harm may come of it, but so long as some of them are not intelligent the law-makers need watching.

Spelling Reform in Chicago Schools.—It seems that the effort to simplify English spelling is making some headway these days. We find the following in the Chicago Daily News for May 24, which shows pretty conclusively that the Chicago board of education means to be progressive:

The business office of the board of education has adopted the reforms in spelling suggested by the National Educational Association, and approved of by Dr. Andrews. In recent notices to persons having business with the board, Clerk Sam Frankland and his assistants in the office of Business Manager Guilford have used the new system.

The contractors are now notified in abbreviated words that they must get "thru" with their work on specified time, while business firms from which the board expects to make purchases are requested to send "catalogs" to the

board. All of the words included in the list are spelt according to the new method. The same system has been adopted by the other departments of the board.

The words in the list are: Altho, catalog, decalog, pedagog, demagog, program, prolog, tho, thoro, thorofare, thru, thruout.

Dr. E. B. Andrews, ex-president of Brown University, is the superintendent of the Chicago public schools. We are glad to welcome him and his board of education to the ranks of "spelling reformists." For several years past the American Bee Journal has been aiding in this needed reform, and grows stronger in its conviction that it is pursuing the right course. Others are invited to join in the good work.

Honey and Beeswax.—We find in the 1898 Yearbook of the United States Department of Agriculture, that there was reported last year honey to the value of \$98,504, and 151,094 pounds of beeswax, valued at \$41,827. During the same time there was imported 96,604 pounds of honey valued at \$38,158, and 272,097 pounds of beeswax valued at \$72,473.

The Big-Little-Hive Fight has been in progress for some time, and among the chief disputants have been Messrs. Dadant and Doolittle. A somewhat diplomatic distance has been kept up, however, between these two, until the last number of Gleanings, in which Doolittle clinches close with Dadant, and a somewhat lively tussle may be expected. Both men are able, both men are honest, and possibly both are correct from their own stand-points, and it is probable that a good bit of light may be brought out by them.

How Does the Queen See in the Dark, so as to lay eggs on the opposite side of the comb? is a question that has been somewhat considered. Some have thought there might be something like X-rays which allowed the queen to see thru the comb so as to lay opposite the brood on the other side. A. J. Wright says in Gleanings that the queen needs no light on the subject, that it's the "rays of dark" that the queen works by! The accompanying foot-note gives no sign that the editor has any doubt as to the correctness of this theory, but some of his readers who are not 'way up in the science of optics may desire to inquire what "rays of dark" are. Please turn the light on this dark subject, Editor Root; or would "turning on the light" destroy the "rays of dark"?

New York's Foul Brood Law.—The law relating to foul brood in the State of New York has recently been satisfactorily amended, thanks to the hard work of Mr. W. F. Marks, one of the widest awake bee-keepers, and to Hon. Jean L. Burnett, a hustling member of the State legislature. The amended law reads as follows:

(Chapter 223, Laws of 1899.)

AN ACT to amend chapter three hundred and thirty-eight of the laws of eighteen hundred and ninety-three, entitled, "An act in relation to agriculture, constituting articles one, two, three, four, five, six, seven and eight of the general laws," relative to prevention of disease among bees.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section eighty of chapter three hundred and thirty-eight of the laws of eighteen hundred and ninety-three, is hereby amended so as to read as follows:

§ 80. The prevention of diseases among bees.—No person shall keep in his apiary any colony of bees affected with a contagious malady known as foul brood; and every bee-keeper, when he becomes aware of the existence of such disease among his bees, shall immediately notify the commissioner of agriculture of the existence of such disease.

§ 2. Section eighty-one of said act is hereby amended so as to read as follows:

SEC. 81. Duties of the commissioner.—The commissioner of agriculture shall immediately, upon receiving notice of the existence of foul brood among bees in any locality, send some competent person or persons to examine the apiary or apiaries reported to him as being affected, and all the other apiaries in the immediate locality of the apiary or apiaries so reported; if foul brood is found to exist in them, the person or persons so sent by the commissioner of agriculture shall give the owners or caretakers of the diseased apiary or apiaries full instructions how to treat said cases. The commissioner of agriculture shall cause said apiary or apiaries to be visited from time to time as he may deem best; and if, after proper treatment, the said bees shall not be cured of the disease known as foul brood, then he may cause the same to be destroyed in such manner as may be necessary to prevent the spread of the said disease. For the purpose of enforcing this act, the commissioner of agriculture, his agents, employes, appointees, or counsel, shall have access, ingress, and egress, to all places where bees or honey or appliances used in apiaries may be, which it is believed are in any way affected with the said disease of foul brood. No owner or caretaker of a diseased apiary, honey, or appliances shall sell, barter, or give away any bees, honey, or appliances from said diseased apiary, or expose other bees to the danger of said disease, nor refuse to allow the said commissioner of agriculture, or the person or persons appointed by him to inspect said apiary, honey, or appliances, and do such things as the said commissioner of agriculture, or the person or persons appointed by him shall deem necessary for the eradication of said disease of foul brood. Any person who disregards or violates any of the provisions of this section is guilty of a misdemeanor, and shall be punished by a fine of not less than thirty dollars, nor more than one hundred dollars, or by imprisonment in the county jail for not less than one month, nor more than two months, or by both fine and imprisonment.

§ 3. This act shall take effect immediately.

Hurrah for New York bee-keepers! They went after it and got it. Illinois bee-keepers went after it too, and—"got left." Well, we hope that some day Illinois will have a legislature that will respect the rights of the people a little more, and do justice to so worthy a class as are the bee-keepers of this State.

The Georgia State Fair, to be held at Atlanta, Oct. 18 to Nov. 4, 1899, proposes making quite a feature of the apary department. The following is the premium list offered on bees, honey, etc.:

	1st.	2nd.
Comb honey, quality and manner of putting up for market to be considered.....	\$13	\$6 00
Extracted honey, quality and manner of putting up for market to be considered.....	13	6 00
Beeswax, not less than 20 pounds.....	7	3 00
Italian bees in one-frame observatory hive, purity of workers considered.....	5	3 00
Italian queen-bee.....	5	3 00
Honey-vinegar, one gallon.....	2	1 00
Apiarian supplies, best collection.....	15	8 00
Comb foundation for brood-chamber.....	2	1 00
Comb foundation for surplus honey.....	2	1 00
Honey-extractor.....	3	2 00
Wax-extractor.....	3	2 00
Bee-hive for comb honey.....	3	2 00
Bee-hive for extracted honey.....	3	2 00
Shipping-case for comb honey.....	2	1 00
Uncapping-knife.....	1	50
Smoker.....	1	50

We trust that our Georgia subscribers, who can do so, will help to put up a good bee and honey exhibit. For any further information address T. H. Martin, Secretary, Prudential Building, Atlanta, Ga.

Honey-Muffins.—Sift together one and a half pints of flour, two teaspoonfuls of baking powder, and a small half-teaspoonful of salt. Work in two tablespoonfuls of butter; add three beaten eggs, one cup of honey, and half a pint of milk. Beat thoroly and bake in a hot oven.—Good House-keeping.



EDITOR HUTCHINSON wants a good article on hunting wild bees. We don't know any one better fitted to write such an article than himself.

HON. J. M. HAMBAUGH, we learn, has recently been appointed inspector of apiaries for San Diego Co., Calif. Writing us May 18, he says:

"There has been a slight honey-flow from sage the past two weeks, but there will be little or no surplus. This is even more than was expected, owing to the long drouth. This section has been badly scourged the past two years."

PROF. A. J. COOK, of Los Angeles Co., Calif., writing us May 18, said:

"As I hoped would be true, the bees are getting quite a deal of honey. It may not last, but I hope it will."

We understand that Prof. Cook expects to come East in July. It is over five years since he went to California. We hope he will arrange to be at the Philadelphia convention, the first week in September. He would enjoy it, and so would everybody else.

THE SEVENTEEN PROMINENT CANADIANS, members of the "Senate of Canadian Bee-Keepers," shown on the first page, form a handsome group, and we are glad of the opportunity to present them to our readers. Mr. D. W. Heise, the "Noter and Picker" of the Canadian Bee Journal, referring to the group picture, had this to say in the same issue of the journal in which the engraving appeared:

"It is not often that I have occasion to find fault with my colleagues in convention, but when two honorable senators will so far lose their self-respect as did F. A. Gemmill and W. Atkinson, at Brantford recently, by making an aggravated assault on a photographer's personal property, in attempting to walk thru a supposed open door (a plate glass mirror) to interview the fellow whom they thought resembled themselves in the adjoining room, I consider it a lasting disgrace. The demand for immediate senate reform is justifiable, and imperative.

"While being arranged in a proper position for a snapshot in the picture gallery, where the reprobates above referred to ran foul of the mirror, Mr. F. Holtermann (more commonly known as the editor of the Canadian Bee Journal) expressed a desire to be tickled down about the fourth rib; or that some one would tell a funny story that would cause the muscles of his face to contract and bring on a smile, which is very, very rarely found there. As this picker happened to be standing by his side, and owing to the disparity in our height, I was in a very advantageous position, and kindly consented to keep up the 'tickling' while the other fellows told stories (real funny ones). Now, dear reader, when that picture appears in the journal (which I expect will be with this issue), just observe the effect the tickling and stories had on that editor. Perhaps I 'tickled' too hard, or perhaps the other fellows told stories too hard. Instead of producing the smile, his countenance really takes on the expression of one in extreme agony, and no smile at all. Poor editor!

"This effect on the said editor reminds me of the Dutchman who purchased a small porker from his Irish neighbor. After keeping said porker until he grew big and fat, the pig-killing day arrived, and after breaking Mr. Grunter's skull with an axe, and 'giving him it in the neck' with a huge knife, of course Mr. G. lay motionless, and just as the Dutchman attempted to take him by the leg to place him in a more congenial position, Mr. Grunter decided to make his last kick on earth, with the result that his foot came with tremendous force against the Dutchman's 'bread-basket,' which paralyzed him for some minutes. When he fully recovered from the nervous shock, he exclaimed, 'Irish—ish—Irish, dead or alive!'

"Moral:—A grim editor will be the same whether in a picture gallery or in his private sanctum."

Hildreth & Segelken, JOBBERS AND COMMISSION MERCHANTS.....

120-122 W. Broadway, **HONEY,** Beeswax, Maple Sugar and Syrup.
NEW YORK.

We desire to inform our friends and patrons that our firm has been re-organized and additional capital added. The business will be conducted under the firm name and style of

HILDRETH & SEGELKEN,

at the old stand, where we have had the pleasure of serving our friends for the past 11 years. Management and supervision will be the same and our business methods—those of square and honest dealings—will be practiced as heretofore.

We believe we have now the esteem and confidence of our shippers thruout the country, and that our dealings, as a rule, have been of the most pleasant nature.

Our additional capital will put us in position to increase our already large business still farther, if possible, and at the same time enable us to treat our shippers even more liberally than heretofore, in making advances, etc.

Records will show that we handle by far the bulk of all the honey sent to our market. We make honey the principal part of our business, are personally acquainted and have trade connections all over the country, which enable us to handle any amount of honey to better advantage than any other house.

Old shippers know us and will bear us out in what we have said. Those bee-keepers who do not know us and have had no dealings with us, we would cordially invite to correspond with us and make our acquaintance. We not only handle on commission but buy largely as well, from small lots to carloads, for spot cash.

We wish to call the attention of the Southern bee-keepers to the fact, that our market never was in better condition than this season. Old stock is disposed of and the market is bare, with a good demand. New crop will find ready sale and at higher prices than have ruled for years past. We would advise them to send their honey, while there is a good demand at good prices, as later on conditions of the market may change.

We also handle **MAPLE SUGAR AND SYRUP** very extensively, and would be pleased to hear from those having any of these goods to offer.

In conclusion, we wish to extend our thanks to all of our shippers for their past favors, and trust to receive their kind consideration in the future.

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Read what J. I. PARENT, of Charlton, N. Y., says: "We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey racks, 500 brood-frames, 2,000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make, and we expect to do it with this Saw. It will do all you say it will." Catalog and price-list free.

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A Journal that is over a quarter of a century old and is still growing must possess intrinsic merit of its own, and its field must be a valuable one. Such is the

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During June and July, 70 cents.

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In the multitude of counsellors there is safety.—Prov. 11-14.

The "Golden Method" Compared With Others.

Query 90.—What percent more of surplus honey do you think can be obtained by the Golden method than by ordinary methods?—OHIO.

Jas. A. Stone—I never tried it.

J. M. Hambaugh—I don't know.

Dr. J. P. H. Brown—I do not know.

Emerson T. Abbott—I do not know.

Eugene Secor—I don't care to guess.

S. T. Pettit—I don't think it a fair question.

A. F. Brown—My experience too limited to say.

Dr. C. C. Miller—I don't know. I never tried it.

Mrs. J. M. Null—I have never tried the Golden method.

E. Whitcomb—I have never tried the Golden method.

P. H. Elwood—I have never tried the Golden method.

R. L. Taylor—None, I think, but I haven't tried that method.

W. G. Larrabee—I have no experience with the Golden method.

G. M. Doolittle—Ask Mr. Golden. Keep an "eye" on the reports regarding it, and compare them with others who use the



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The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. We mail it for 25 cents; or will send it FREE as a premium for sending us ONE NEW subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year

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Tells all about Bees in California. The yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by an expert bee-man. Besides this the paper also tells you all about California Agriculture and Horticulture. \$1.00 per year; 6 months, 50 cents. Sample copies, 10 cents.

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Golden Italian Queens Warranted purely mated; all Queens by return mail; will run 1,200 nuclei; Queens reared by Doolittle's method; safe delivery and satisfaction guaranteed; have 11 years' experience and know what good Queens are. Prices—75c each; 6 for \$4. Selected, \$1; 6 for \$5. After July 1, 50c each; 6 for \$2.75. Selected, 75c; 6 for \$4. My Queens are prolific and workers, industrious as well as beautiful to look at; hundreds of testimonials prove this. I just now have a nice lot of Queens which have just started to lay. Order at once and I will send you something fine. **SPECIAL LOW PRICE** on Queens in quantities. Address,
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Money Order Office, BELLEVUE.

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Root's Column

ENTIRELY UP WITH ORDERS

Our extensive enlargements last fall, costing in the aggregate some \$15,000, enables us to keep pace with our increasing trade. Send in your orders, and they will be promptly executed, either from the main office or branches and agencies. Give us a trial, and see how quickly we can make shipment.

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ordinary methods. Time will prove more than my "think" possibly can.

Dr. A. B. Mason—I don't know; have not tried the Golden method.

O. O. Poppleton—I have no experience with the Golden method.

Mrs. L. Harrison—I have had no experience, one better not speak. I have no experience.

D. W. Heise—I have never tried the Golden method, therefore I cannot say.

E. S. Lovesy—With able, practical management I believe there would be very little difference.

Prof. A. J. Cook—Except one speak from experience, one better not speak. I have no experience.

Mrs. A. J. Barber—I have never tried it, and I do not believe it would succeed at all with us (in Colorado).

C. H. Dibbern—As I have not practiced that method I can only make a guess, and you can do that as well.

E. France—I don't know anything about the Golden method. All the method I know is "France's method"—get all you can.

Rev. M. Mahin—I have not tried the Golden method, nor seen it tried by any one else. I may not know as much about it as I think I do, but I have no faith in it.

J. E. Pond—I know nothing by practice of the "Golden method," and can say nothing of it by my own experience. As a matter of opinion, however, I am inclined to the belief that little if any gain can be made by its use.

C. Davenport—I have not tried this method, but I have great respect for what Mr. Golden says, or writes. He is a veteran, and belongs to that class who have done so much to advance bee-keeping from old-time methods to what it is at present.

Adrian Getaz—I have not tried the Golden method. Any kind of management that will successfully prevent swarming, or rather increase, will give far better results than the ordinary methods. In poor seasons it may make all the difference between some surplus and none at all.

G. W. Demaree—The answer to this question must be judged by the meaning the reader attaches to your expression, "by ordinary methods." In my experience as a honey-producer, more depends upon close attention to all present conditions—utilizing all the forces of the apiary at the right time—than depends upon the peculiar construction of the hive.



Colonies Very Strong.

I have been in the bee-business for the past four years, and I find a great deal of enjoyment in working with bees. I had 12 colonies last fall and I wintered them on the summer stands. I have been very fortunate as I lost but one. My colonies are very strong; they are Italians.

Whiteside Co., Ill. J. W. ISHERWOOD.

Northwestern Illinois Convention.

The bee-keepers of the western part of the Northwestern Illinois Bee-Keepers' Association, held the spring meeting at the home of John Wagner, in this (Stephenson) County. The attendance was small, as the rain in the morning and the day before left traveling in bad shape, but those who were there seemed enthusiastic and hoped for better crops of honey this season. There was small loss reported, and bees generally in good condition.

Mr. Wagner met us at the station with his team and took us to his delightful residence where it was one's own fault if he did not enjoy himself, for Mr. Wagner and

SWEET CLOVER

And Several Other Clover Seeds.

We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

	5lb	10lb	25lb	50lb
Sweet Clover (melilot).....	60c	\$1.00	\$2.25	\$4.00
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White Clover.....	80c	1.40	3.00	5.00
Alfalfa Clover.....	60c	1.20	2.75	5.00
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Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

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—ALSO THE—
Golden and 3-banded Italian.

Untested, 50c each; tested, 75c. Purity of stock and safe arrival guaranteed.

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BY STEAM—with the simple, perfect, self-regulating
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Thousands in successful operation.
Lowest priced list-class hatchery made.
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Thorobred — Fine Plumaged Fowls—Farm Raised—75 cents per dozen. MRS. L. C. AXTELL, ROSEVILLE, ILL.
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DO NOT FAIL

Before placing your order, to send me a list of what you need in

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IF YOU want the best honey-gatherers, the longest-lived and hardest Queens, try a few of my **Northern-bred Italians**—"daughters of imported Queens." Tested Queens, \$1.50; untested, \$1.00; 2-frame Nuclei with tested Queen, \$3.00 each; the same with untested Queen, \$2.25. Ready to fill orders by June 1. Correspondence solicited.

MATE WILLIAMS,

NIMROD, Wadena Co., MINN.

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WHEN YOU WANT ..QUEENS..

Send us your order. We will fill it by RETURN MAIL, with the best of Italians, large yellow Queens, healthy and prolific, workers gentle and the best of honey-gatherers. Tested Queens, \$1.00 each; Untested, 75c; \$8.00 per dozen. Send for our price-list, and see what others say.

J. W. K. SHAW & CO.,

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It is a matter of great convenience and a saving of labor for a farmer to have a low, handy wagon. They save more than half the labor of loading in hauling manure, hay, grain, corn-fodder, wood, stones, etc. The man who already has a wagon may have one of these low, handy wagons at the small additional cost for a set of wheels. These Electric Steel Wheels, with either direct or stagger spokes, with broad-faced tire, are made to fit any axle. You can convert your old wagon to a low, handy wagon in a few moments' time. You thus virtually have

two wagons at one price. Write to the Electric Wheel Co., box 16, Quincy, Ill., for their catalog, which fully explains about these and their Electric Handy Wagons, Electric Feed Cookers, etc.

BEES

QUEENS
Smokers, Sections,
Comb Foundation
And all Appliance Supplies
cheap. Send for
FREE Catalogue. **E. T. FLANAGAN,** Belleville, Ill.
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2-frame Nucleus with Untested Queen, \$2.25.

Untested Italian Queens, 65 cents each. Ready May 1, 1899. Have orders booked now, and get bees when wanted.

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POUDER'S HONEY-JARS and everything used by bee-keepers. Prompt Service—low freight rate. Catalog free.

WALTER S. POUDER,

512 Mass. Ave.,
INDIANAPOLIS, INDIANA.

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wife had everything in good style, while they had provided enough for a full-sized camp-meeting. I hope they may live many years and have their share of honey.

We mist many faces that we have met at our conventions, and saw some new ones which we hope to see at future meetings.

JONATHAN STEWART.

Stephenson Co., Ill., May 16.

Moving Bees to an Orchard.

The loss of bees here the past winter has been heavy, especially among farmers, at least 75 percent. I lost 5 out of 46 colonies. The weather for the past month has been very favorable, and they are breeding up fast. The prospect for clover and linden is good.

A man living $1\frac{1}{2}$ miles from me came yesterday to get me to put 20 colonies or more in his 80-acre apple-orchard for 10 days, to fertilize the bloom. He offered 15 cents a colony. I took 10 colonies, but do not like to risk moving many now while they are gaining so fast here.

Wayne Co., Iowa, May 11. J. C. DAVIS.

Very Dry Weather.

The weather here is very dry and bees have done nothing up to date. As is usually the case, as soon as the trees blossomed cloudy weather set in. There will be no clover honey unless rain soon comes along.

HENRY ALLEY.

Essex Co., Mass., May 19.

Heavy Winter Losses.

Nearly all the bees wintered out-of-doors were lost. One bee-keeper has only 15 left out of 56 colonies; another has one left out of 26. Those who cellared their bees are much better off—loss very light.

The weather now is very unfavorable for the bees—cold and rainy nearly all of the spring—in fact, very few good days for them. From all accounts the "golden's" have wintered best.

GEO. RANDALL.

Cherokee Co., Iowa, May 20.

One of the Hustling Brown(ie)s.

I have three honey-flows here and it doesn't seem likely that all of them will fail. I am trying hard to get my dishes right side up to catch all the flows. I do believe I am in a good location for bees. I have just extracted over a barrel of honey that was in the way of the queens. (You see I put them into winter quarters with a plenty.) I have put extracting-supers on some of the strong colonies so they can remove the honey from the brood-nests and make room for the queens, and the bees are rushing the honey up-stairs just as I told them to. They have been getting considerable from fruit-bloom. What they are working on just now I do not know, but they are getting their "daily bread."

I am almost as busy as the blessed bees are; I get up every morning at 4 o'clock, and I work at not a thing but bee-keeping.

Erie Co., N. Y., May 23. E. W. BROWN.

King-Birds Destroying Bees.

I had a little experience to-day that was quite unusual, in fact I never heard any thing like it in bee-experience. It has been cold, cloudy and windy for three or four days, finally ending in a cold, driving rain, and I suppose the birds have become very hungry. To-day the bee-birds gathered in my apiary to the number of two or three dozen, sometimes two or three sitting on one hive. It was cold and windy so there were but few bees flying, otherwise I believe they would have done considerable damage. I tell you, seeing is believing, and it will be useless to try to convince me that the king-bird is anything but an enemy to the bee-keeper. Why, they would actually sit on the corner of a hive and watch down at the entrance, and if a bee showed herself or took wing she was gobbled up in short order.

The past severe winter seems to have

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Send us TWO NEW SUBSCRIBERS to the Bee Journal (with \$2.00), and we will mail you a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for \$1.25, or we club it with the Bee Journal for a year—both for only \$1.75. But surely anybody can get only TWO NEW SUBSCRIBERS to the Bee Journal for a year, and thus get the book as a premium. Let every body try for it. Will YOU have one?

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Honey and Beeswax Wanted.

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CHAS. F. MUTH & SON.

I wish to announce to my friends and patrons that I have this day sold to C. H. W. WEBER, of Cincinnati, my Honey and Bee-keepers' Supply business, known for the past 38 years as CHAS. F. MUTH & SON. Mr. Weber will continue to push the Langstroth hive and everything pertaining to same; besides, he has secured the agency for Mr. Root's goods, and will sell them at his prices. I beg the customers of the old house, to whom I wish to extend my thanks, to continue their patronage with Mr. Weber, by whom I am sure they will be accorded fair and honest treatment.

MRS. ANNIE MUTH (Widow.)
Cincinnati, Ohio, April 7, 1899. 15Atf

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We have several 25-pound boxes of Van Deusen Thin Flat-Bottom Comb Foundation for sale at \$12.50 per box. This Foundation is preferred by many. We have only a few boxes of it at our Chicago Branch, so an order for same should be sent promptly. Address,

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Are not Italians; they are **GOLDEN CARNIOLANS**—and practically a non-swarmling, non-stinging strain of bees; great honey-gatherers and sure to winter. Tested Queens, each, \$1.00; 6 Queens, \$5.50; 12 Queens, \$9.00. Everything guaranteed. Book giving 37 years' experience in queen-rearing mailed free.

HENRY ALLEY,

21A31 WENHAM, ESSEX CO., MASS.
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Has no Sag in Brood-Frames.

Thin Flat-Bottom Foundation

Has no Fishbone in the Surplus

Honey.

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J. A. VAN DEUSEN,
Sole Manufacturer,

Sprout Brook, Montgomery Co., N.Y.

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Queens

Untested Italian, \$1.00 each; after July 1, 70 cents each; 3 for \$2.00. Tested, \$1.25 each. Catalog free. Address

Theodore Bender, Canton, Ohio.

8Atf Please mention the Bee Journal.

made away with all kinds of insects, so I suppose the birds are hard prest for food.

Bees that were left out-doors last winter almost all died. I heard of one man who had 18, lost all; another who had 12 or 14, has one left; another, who had a big dry-goods box that has had a colony in it for four or five years, always wintered on summer stands without protection, is now out of the business. My own loss is about 10 per cent, mostly all owing to leaving out-doors, my cave being too small to hold all.

The bees have done fairly well up to the present, but fruit-bloom is a failure on account of cold winds and rain, so I suppose we will have to feed some.

All my alsike clover winter-killed, but there is some white clover left, and perhaps the present wet weather may bring it on in good "shape" yet. **E. S. MILES.**

Crawford Co., Iowa, May 14.

Preserving Fruit with Honey.

On page 231 is an item in regard to preserving fruit with honey instead of sugar. Some years since I carried on business in St. Louis, and among my stock I kept fruit and honey. A customer of mine wished me to be sure to secure her a couple of bushels of damson plums, and as they were very scarce in that vicinity, I had to send to Indiana for them, and obtained about four bushels; by the time I got them and paid the charges and first cost they stood me a pretty good figure, and then my customer backed out, and I was out—both pocket and temper.

I kept the plums a few days, and could not sell them. I had in the shop about 500 pounds of extracted clover honey, very fine, and I decided either to spoil a whole lot of honey and all the plums, or else make my money out of them.

I treated the plums the same as I would to preserve them with sugar, but instead of pound for pound I used two pounds of honey to one of plums. I put them up in gallon stone jars, covered them with paper,

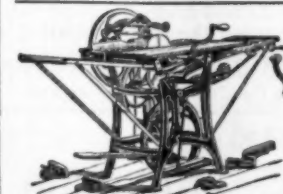


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of responsibility to the fence question is discharged to the extent that the Page is introduced. Have you taken it up?

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40 PAGE CATALOG BEE-KEEPERS' SUPPLIES.

Instructions to Beginners, &c., free.

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BEE-HIVES AND SECTIONS

Are Models of Perfection.



This is the Verdict of Thousands of Customers and the Acknowledgment of Competitors.

Our unrivaled facilities, coupled with twenty-five years of manufacturing experience, enable us to anticipate and supply every want and need of the bee-keeper, promptly and accurately.

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Operates two Sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of **Bee-Keepers' Supplies....**

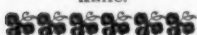
They have also one of the **LARGEST FACTORIES** and the latest and most improved machinery for the manufacture of **Bee-Hives, Sections, &c.**, that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polished on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equip with best machinery, all combine to enable this firm to furnish the **BEST GOODS AT THE LOWEST PRICES.**

Send for Circular and see the prices on a full line of Supplies.

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Smoke Engine (largest smoker made) 4-in. stove. Doz.	\$13.00; each, by mail, \$1.50
Doctor.....3 1/2 in. stove. Doz.	9.00; " 1.10
Conqueror.....3 in. stove. Doz.	6.50; " 1.00
Large.....2 1/2 in. stove. Doz.	5.00; " .90
Plain.....2 in. stove. Doz.	4.75; " .70
Little Wonder (weight 10 ounces) 2-in. stove. Doz.	4.50; " .60
Honey-Knife.....Doz.	6.00; " .80

Bingham Smokers have all the new improvements. Before buying a Smoker or Knife, look up its record and pedigree.

FIFTEEN YEARS FOR A DOLLAR; ONE-HALF CENT FOR A MONTH.

Dear Sir:—Have used the Conqueror 15 years. I was always pleased with its workings, but thinking I would need a new one this summer, I write for a circular. I do not think the 4-inch Smoke Engine too large.

January 27, 1897.

Truly, W. H. EAGERTY, Cuba, Kansas.

T. F. BINGHAM, Farwell, Michigan.

OUR MOTTO: WELL MANUFACTURED STOCK — QUICK SHIPMENTS.

Sections, Shipping-Cases and Bee-Keepers' Supplies

We make a specialty of making the very best Sections on the market.

The **BASSWOOD** in this part of Wisconsin is acknowledged by all to be the best for making the **ONE-PIECE HONEY-SECTIONS**—selected, young and thrifty timber is used.

Write for Illustrated Catalog and Price-List **FREE.**

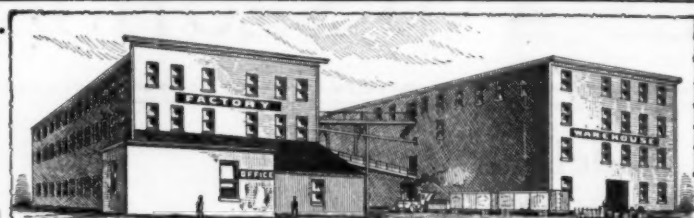
Marshfield Manufacturing Company,

Please mention Bee Journal when writing.

MARSHFIELD, WISCONSIN.

**Carloads
of Bee-
Hives....**

Sections,
Shipping-Cases,
Comb Foundation



and EVERYTHING used in the bee-industry. We want the name and address of every bee-keeper in America. We supply dealers as well as consumers. We have Dry Kiln, Improved Machinery, 40,000 feet of floor space, and all modern appliances. We make prompt shipment. Write for Catalogs, Quotations, etc.

INTER-STATE MFG. CO., Hudson, St. Croix Co., Wis.

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300 Cases of Second-Hand 60-pound Cans

We have found another lot of 300 cases (two cans in a case) of second-hand 60-pound Cans—practically as good as new. We offer them at 45 cents per case in lots of five, f.o.b. Chicago; or in lots of 10 cases or over, 40 cents per case. Address,

GEORGE W. YORK & CO.,

118 Michigan Street, CHICAGO, ILL.

and then tied a cloth over them, and set them in the back end of my ice-box. At the end of a month I sampled them, and one taste was enough. They were bitter, pungent, and tasted bad generally. I left them in the ice-box until November, and then took them out and set them in a cool place until Christmas, when I sampled them again, and found they had undergone a complete change for the better. I only had to offer them for sale, and got \$2.00 per gallon for them, and calls for more.

I think that using double the amount of honey with many of our fruits will prove very successful.

J. H. HERMANC.

Garland Co., Ark.

Thirteen-Year-Old Josie.

On page 292, Cogitator asks if that 13-year-old Josie is a boy Josie or a girl Josie. Well it was a 13-year-old girl Josie, but now I am 14 years old, and I think I ought to eat more honey than before.

MISS JOSIE M. TICHENOR.

Crawford Co., Wis.

Several Apian Paragraphs.

Years ago a bee-keeping friend went to one of the most successful apiarists we have here, to find out how to prepare his bees for winter, and the satisfaction he got was that he would have to learn it. The questioner had been losing his bees quite heavily during winters, and wanted a remedy for the evil. Here is the remedy as I have found it:

Buy a text-book, subscribe for one or more bee-papers, and thus get valuable information from those who let their light shine.

Do bees ever carry eggs from one cell or comb and place it in another? For myself, I believe it is such a delicate piece of work that bees have never done it.

Honey-dew was gathered quite plentifully in 1898, judging from the amount found on the market last December. It is a pity, for it hurts the sale of honey from fall flowers, such as touch-me-not, which is our main source here.

The honey-dew I found on the market was of a somewhat dark color or reddish cast, and did not granulate, while fine honey from fall flowers granulated as soon as cool weather came. The amount of damage done by honey-dew is hard to estimate, as the market was well supplied with the vile stuff put up in glass tumblers with the producer's name on it. I should think that one glass of such honey would satisfy one's appetite for a long time. I am disgusted with that kind of business.

We have a basswood shade tree that comes in bloom a week later than other trees here, and goes out of bloom about a week later than other basswoods. It has bloomed this way for years—ever since it began to bloom.

C. A. BUNCH.

Marshall Co., Ind.

About Wintering Bees, Etc.

In reading Miss Fannie C. Damon's failure in wintering her bees, I thought perhaps the way I had mine protected at the entrance might be of use to her, or some one else that did not do the same way.

I did not know how the winter might be, so at the commencement of the snow, I had a lot of bottom-boards made. I set one on its side at the entrance of each hive, a little way out at the bottom, then leaned it close against the hive at the top, so that it made a space under it. When it snowed I would get thru the snow to each hive, and draw the top out enough to get the snow from the entrance and put the board back. I would leave it banked on the north side to keep the cold out, but clear it away on the south side, so no ice formed at the entrance. I had Hill's device on each brood-frame, then canvas over that, the top on, and a cushion on that. Some of the cushions had cork, and some dry grass in them; that was all the protection they had except what I told in my previous letter. I don't see any difference between the ones I used

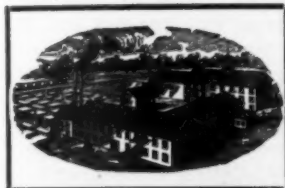
the fodder around and the ones I had the boxes around. All did well.

I have changed four of my hives to the Golden method. I intend to put the first swarm into them and see whether I can do any better with them than with the others. If I do, so much for having the American Bee Journal, which I could not think of being without, nor should any one that has any bees. I am anxious to see it every week; if I get my mail on Friday it is always on hand.

We have had a cold, late spring. I hope we will have better weather soon. We have had a cold, late spring ever since I have been in the bee-business—three years.

I see a question about putting bees into the garret. A friend of mind has three colonies in his garret, and they have done well. I think he took the frames out of the hive and put them in a box. I did not see the box, but it was long enough to put one hive in each end, a space between each one, and a hole made in the weather-board opposite each one, and fast so they could not get out into the house. The box has a tight cover to it, so they can look in by lifting the cover. He told me they had stored handsome honey. They are on the south side of the attic. He said they all used the same passage-way now, that is, the two in the same box. I believe he said he took a piece of tube and put in the box, and cut thru the siding, and made a little alighting-board outside, as it bothered them to strike the hole right.

MRS. SARAH GRIFFITH.
Cumberland Co., N. J., April 17.



20A13t

Please mention Bee Journal when writing.

Convention Notices.

Texas.—The Central Texas Bee-Keepers' Association will meet at Milano, Tex., July 20 and 21, 1899. All are cordially invited to attend.
H. H. HYDE, Asst. Sec. and Treas.
Hutto, Texas.

Bees FOR SALE

Write me soon.

20Atf H. LATHROP, BROWNTOWN, WIS.
Please mention Bee Journal when writing.

Headquarters FOR THE Albino Bee!

THE BEST IN THE WORLD.

If you are looking for the bees that gather the most honey, and are the gentlest of all bees to handle, buy the ALBINO. I can furnish the Italians, but orders stand, as heretofore, 50 to 1 in favor of the ALBINO. I manufacture and furnish SUPPLIES.

S. VALENTINE, Hagerstown, Md.

California! If you care to know of its Fruits, Flowers, Climate or Resources, send for a sample copy of California's Favorite Paper—

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The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, \$2.00 per annum. Sample copy free.

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We also manufacture Tanks of either wood or galvanized steel, all sizes, any form, for all purposes. Price list free. Address, E. KRETCHMER, RED OAK, IOWA.

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The Novelty Pocket-Knife

(A heavier and stronger knife than the one we offered heretofore.)



(THIS CUT IS THE FULL SIZE OF THE KNIFE.)

Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the Subscriber.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a lifetime, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00), and we will also send to each new name a copy of the Premium Edition of the book, BEES AND HONEY. We will club the Novelty Knife and the Bee Journal for one year, both for \$1.90.

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

Please mention the Bee Journal when writing Advertisers.

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, May 8.—Not anything of consequence doing; a little honey is being sold at prices that have been prevailing for some time. White comb is scarce, but there is a surplus of dark. Extracted unchanged. Stocks light. Beeswax, 27c. R. A. BURNETT & Co.

DETROIT, April 10.—Fancy white, 12c; No. 1, 10c; 11c; dark and amber, 8c; 9c. Extracted in fair demand without change in price. Beeswax, 25c; 26c.

Decreasing demand and the attempt to crowd sales have forced down prices on comb honey. M. H. HUNT.

NEW YORK, May 9.—Fancy, 7c; 7½c; choice, 6c; 6½c; fair, 5½c; 6c; common, 5c; 5½c per gallon. Beeswax quiet at from 26c to 28 cents, according to quality.

Our market is in first-class condition, being bare of extracted honey, and demand good. New crop is beginning to arrive from the South. Comb honey is well cleaned up; some demand for white but demand for dark has ceased. HILBRETH & SEGELKEN.

SAN FRANCISCO, May 3.—White comb, 10c; 10½c; amber, 7½c; 9c. Extracted, white, 7½c; 7c; light amber, 6½c; 7c. Beeswax, 26½c; 27c.

In quotable values there are no changes to record. A ship clearing this week for Siberia took 231 small cases of extracted, being honey repacked by jobbers. There will be a fair yield this season in the San Joaquin, probably 150 cars, mostly alfalfa honey, but the production will be very light in the balance of the State.

BOSTON, May 17.—Fancy white, 12½c; 13c; A No. 1, 11c; 12c; No. 1, 10c; light amber, 9c; buckwheat, 8c. Extracted Florida, white, 7½c; 8c; light amber, 6½c; 7c. Beeswax, 27c; 28c.

The demand for both comb and extracted honey has settled down to the usual small proportions of summer, and prices quoted would be shaded some, too, as stocks are a little heavier than is liked at this season of the year.

BLAKE, SCOTT & LEE.

KANSAS CITY, May 15.—No. 1 white comb, 15c; fancy amber, 14c; No. 1 amber, 13c; fancy dark, 13c; No. 1 dark, 12c. White extracted, 6c; amber, 5½c; dark, 4c; 4½c. Beeswax, 25c. C. C. CLEMONS & Co.

CLEVELAND, March 9.—Fancy white, 13c; 14c; No. 1 white, 12c; 13c; A No. 1 amber, 10c; 11c; No. 2 amber, 9c; 10c; buckwheat, 8c. Extracted, white, 7c; amber, 6c; buckwheat, 5c. A. B. WILLIAMS & Co.

BUFFALO, May 5.—The season for honey is about closed. Some extra fancy white would sell at 11c; 12c; some very poor selling at 6c; 7c, and dull. No more business in honey before the opening of the ensuing season. BATTERSON & Co.

OMAHA, May 18.—It is a hard matter just now to give quotations that would have any meaning at all. With the exception of small lots of buckwheat—very good for its kind, but it is not the kind wanted here, which dragged at 8c; 9 cents—there have been no new receipts, and there will not be a pound of honey carried over in dealers' hands. First receipts of new crop will certainly be picked up eagerly at fancy figures. FEYCKE BROS.

BY RETURN MAIL GOLDEN BEAUTY ITALIAN QUEENS

—reared from IMPORTED MOTHERS. Untested, 50 cents; Tested, \$1.00.

TERRAL BROS. Lampasas, Lamp. Co. Tex
18Atf Please mention the Bee Journal.

BEE-HIVES, SECTIONS, SHIPPING-CASES—everything used by beekeepers. Orders filled promptly. Send for Catalog. Minnesota Beekeepers' Supply Mfg. Co., Nicollet Island, Minneapolis, Minn. 18Atf
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Italian Queens

Reared by the Doolittle method from the BEST HONEY-GATHERERS. Untested, 50 cents each; \$6.00 per dozen. Safe arrival and reasonable satisfaction.

Address, W. J. FOREHAND,
20A11t FORT DEPOSIT, ALA.
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Order Early

There are indications that the demand for SUPPLIES will be very large this season, and everyone should order as early as possible. We have large facilities for manufacturing all kinds of

Bee-Keepers' Supplies,

And will serve our customers as quickly as possible.

Falcon Sections are the Finest Made.

1899 Catalog ready Feb. 1. Copy of the AMERICAN BEE-KEEPER (20 pages) free. Address

The W. T. Falconer Mfg. Co.
JAMESTOWN, N. Y.

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We make the New **Champion Chaff-Hive** with fence and plain sections, and a full line of other

SUPPLIES.

A postal sent us with your name for a Catalog will meet with the greatest surprise. **R. H. SCHMIDT & CO.,** SHEBOYGAN, WIS.

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It will pay you to fit yourselves for good positions by taking Shorthand by Mail. Send \$1.60 for Text Book or 3 cents for catalog

Eclectic Shorthand College,

518 Ashland Block, CHICAGO.

Headquarters of the Eclectic System.

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BEE-BOOK

That covers the whole Apicultural Field more completely than any other published, send \$1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keepers' Guide.

Liberal Discounts to the Trade.

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I ARISE



To say to the readers of the BEE JOURNAL that

DOOLITTLE ...

has concluded to sell QUEENS in their season during 1899, at the following prices:

1 Untested Queen .. \$1.00
6 Untested Queens.. 4.50
12 Untested Queens 8.00
1 Tested Queen 1.50
3 Tested Queens 3.50
1 select tested queen 2.00
3 " " Queens 4.00
Select Tested Queen, previous season's rearing, \$3; Extra Selected, for breeding, the very best, \$5.00. About a pound of Bees in a 2-frame Nucleus, with any Queen, \$2.00 extra.

Circular free, giving full particulars regarding each class of Queens. Address,

G. M. DOOLITTLE,

11A26t Borodino, Onondaga Co., N. Y.

Please mention Bee Journal when writing

22nd Year Dadant's Foundation. 22nd Year

Why does it sell so well?

Because it has always given better satisfaction than any other. Because in 22 years there have not been any complaints, but thousands of compliments.



We guarantee satisfaction.

What more can anybody do? BEAUTY, PURITY, FIRMNESS, No SAGGING, No LOSS. PATENT WEED PROCESS SHEETING.

Send name for our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

The following dealers handle our Foundation exclusively:

G. B. Lewis Co.....	Watertown, Wis.	J. Nebel & Son	High Hill, Mo.
E. Kretschmer.....	Red Oak, Iowa.	G. W. Fassett.....	Middlebury, Vt.
J. M. Jenkins.....	Wetumpka, Ala.	J. W. Bittenbender.....	Knoxville, Iowa.
Portland Seed Co.....	Portland, Oregon.	J. L. Gray	St. Cloud, Minn.
E. T. Abbott.....	St. Joseph, Mo.	Pierce Seed and Produce Co.....	Pueblo, Colo.
L. C. Woodman.....	Grand Rapids, Mich.	F. Foulger & Sons.....	Ogden, Utah.
J. Nysewander.....	Des Moines Iowa	R. H. Schmidt & Co.....	Sheboygan, Wis.
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Langstroth on the Honey-Bee, Revised. The Classic in Bee-Culture—Price, \$1.25, by mail.

Beeswax Wanted at all times.

CHAS. DADANT & SON,

Please mention Bee Journal when writing.

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For Apianian Supplies, address **LEAHY MFG. CO.,** Higginsville, Mo. 1730 S. 13th St., Omaha, Neb. 404 Broadway, E. St. Louis, Ill. Please mention Bee Journal when writing.

Mr. Eastern Bee-Keeper,

Now is the time you want FOUNDATION AND SECTIONS in a rush. We usually fill orders within 24 hours of the time received. If you want your SUPPLIES shipped at once, send here.

SQUARE TIN CANS

For Extracted Honey, two 5-gallon cans in a case, 10 cases, \$5.00. Discount on a quantity.

Italian Queens and Bees in Season.

Our Catalog describes all, and we mail it free.

I. J. STRINGHAM, 105 Park Place, New York, N. Y.

Please mention Bee Journal when writing.

25 cents Cash paid for Beeswax.

cept. Now, if you want the money PROMPTLY, send us your Beeswax. Impure wax not taken at any price. Address as follows, very plainly,

GEORGE W. YORK & CO.,

118 Michigan Street, CHICAGO, ILL.

This is a good time to send in your Beeswax. We are paying 25 cents a pound—CASH—upon its receipt.